structure. It is held by Gegenbaur that this organ is the equivalent of the reptilian tongue, and that in the skeletal vestiges which it contains are to be found the equivalents of the hyoid skeletal cartilages which support the tongue in lizards. In this case the tongue of mammals is a subsequently added structure.

The *oesophagus* leads from the mouth cavity to the *stomach.* The latter organ has commonly a distinctive shape in mammals. This is well shown in Man. The orifices of the oesophagus and intestine are somewhat approximated; and this causes a bulging of the lower border of the organ, usually spoken of as the greater curvature. A stomach of this typical form is found in many orders of mammals, and is unlike the stomach in any of the groups of lower vertebrates in shape. Sometimes the shape of the organ is greatly altered: it may be drawn out, sacculated, or divided, as in the Huminants and Whales, into a series of differentiated chambers, each of which plays some special part in the phenomena of digestion.

The *intestine* of mammals is always long and much coiled, though the length and consequent degree of coiling naturally varies. On the whole it is perhaps safe to say that it is shorter in carnivorous than in vegetable-feeding beasts. Thus the Paca has an intestine of 39 inches total length, while the Cat, an animal of about the same size, has an intestine which is only 36 inches long. A fish diet, however, to judge from the Seals, is associated with a long intestinal tract. The intestine is divisible in. the vast majority of mammals into a small and a large intestine. The two are separated by a valvular constriction save in certain Carnivores; and in the majority of cases the distinction is also emphasised by the presence at the junction of a blindly-ending diverticulum, the *caecum.* This latter organ varies greatly in length, being very short in the Cat-tribe and exceedingly long in Bodents. Its size is, to some extent, dependent upon the flesh-eating or grass-eating propensities p£ the animal in which it occurs. One of the

longest caeca is possessed by the Vulpine Phalanger, in which the organ is one-fifth of the length of the small intestine; while the opposite extremity is reached by *Felis macroscelis*, which lias a small intestine one htuadred times the length of the caecum,

An interesting point in connexion with the gut of mammals